

## STATEMENT OF WORK AND REQUIREMENTS

### Overview

The **Burundi, Bujumbura** Consular Section requires the services of a contractor to replace the intercommunication systems of its consular windows (**4 of windows**). The consular intercom system is composed of a two-way communications system at each consular window to facilitate communication between the consular employee(s) and the applicant(s). The contractor selected shall provide and install two-way intercommunication system (microphone, speaker, and control unit) at the specified consular windows of the Consular Section of the **Burundi, Bujumbura**. The work shall include removing existing intercommunication equipment, installation of the new equipment, testing the new equipment, and training staff how to operate the equipment. Work shall be warrantied for a minimum of one year. As the work is to be performed in stages, the installation of new intercommunication system must not degrade the performance of the remaining intercom systems. A site visit will be offered during the bid submission period.

### GENERAL SPECIFICATIONS

#### Microphone/Speaker System

This contract is for the delivery and installation of functioning microphone/speaker systems for the Consular Section of **Burundi, Bujumbura**. The contract will cover a total of (4 of windows) interview windows (break out window count and cashier booth), and the public waiting area. Each window must enable the consular employee and the applicant to communicate clearly despite being separated by a thick pane of glass, in accordance with the audio quality/intelligibility specifications below. Contractor's proposal shall include a detailed table of proposed devices/materials (including name of manufacturer, brand and model name, and intended use of each of the devices/materials proposed).

The first phase of installation should cover a minimum of ten windows. The number of window audio systems being replaced at each time will be dependent on the funding available in each phase but should aim to replace at least ten to twelve microphone/speaker systems during each phase of installation.

Cost to include all audio equipment, controllers, **officer** microphones, applicant microphones, speakers, headsets, and equipment rack with internal rack cabling. System equipment manuals, operations guide and submittal drawings. This contract shall also cover the necessary removal of the existing system(s) and associated wiring and appurtenances.

The contractor shall provide equipment, components, software, accessories, and miscellaneous items necessary to achieve fully functioning audio system for consular teller **windows**. System design shall conform to ANSI/INFOCOMM 2M: 2010, "Standard Guide for Audiovisual Systems Design and Coordination."

#### Audio Performance Characteristics:

Frequency Response: 30Hz – 18 KHz, within 3.0db

Signal to Noise Ratio: 55dB minimum

Total Harmonic Distortion: 1 percent maximum from 30Hz-15Hz (THD)

Audio Intelligibility: Consular intercom systems shall achieve minimum performance for Speech Transmission Index (STI) exceeding the level of “Fair” quality (i.e., the STI level meets or exceeds 0.60 STI) identified in International Standard IEC 60286-16 (2003-05), “Objective Rating of Speech Intelligibility by Speech Transmission Index).” For testing, white noise or spoken word source within Consular Waiting Room shall be set to 65 dBA at 1M to simulate conversation level within Consular Waiting Room. Noise source shall be positioned to emulate waiting applicants.

The pre-configured system will feature gooseneck microphones and base with a toggle to talk button per the State Department’s design 275105 (refer to attachment). A Biamp Tesira (or equal) DSP with the required modules that will be used for processing the digital audio signals and echo cancellation (AEC) at each interview window.

Audio systems will provide echo cancellation and audio processing in office and public areas. Audio speakers in staff areas should be wall mounted (if applicable); applicant area speakers should be ceiling mounted (if applicable). The contractor will provide a wall mounted boundary zone microphone on the public side with mounting to a single gang wall plate; provide equalization and processing for all audio sources; and provide amplification for contractor provided audio speakers at two discrete channels.

The system will feature the desktop microphones on the Consular Staff side of each window. Consular users should be able to easily switch between using the gooseneck microphone/ or a wired headset (non-Bluetooth). The volume controller shall have a mute button that mutes the speakers on the applicant’s side whether the consular employee is using the gooseneck microphone or the headset’s microphone.

The applicant side microphones will always be powered on with no button for the applicant to toggle/mute when speaking to the Consular Officer. **Applicant side microphone to be placed to provide direct coverage of teller window glass surface to ensure adequate discrimination between applicant voice and waiting area noise.**

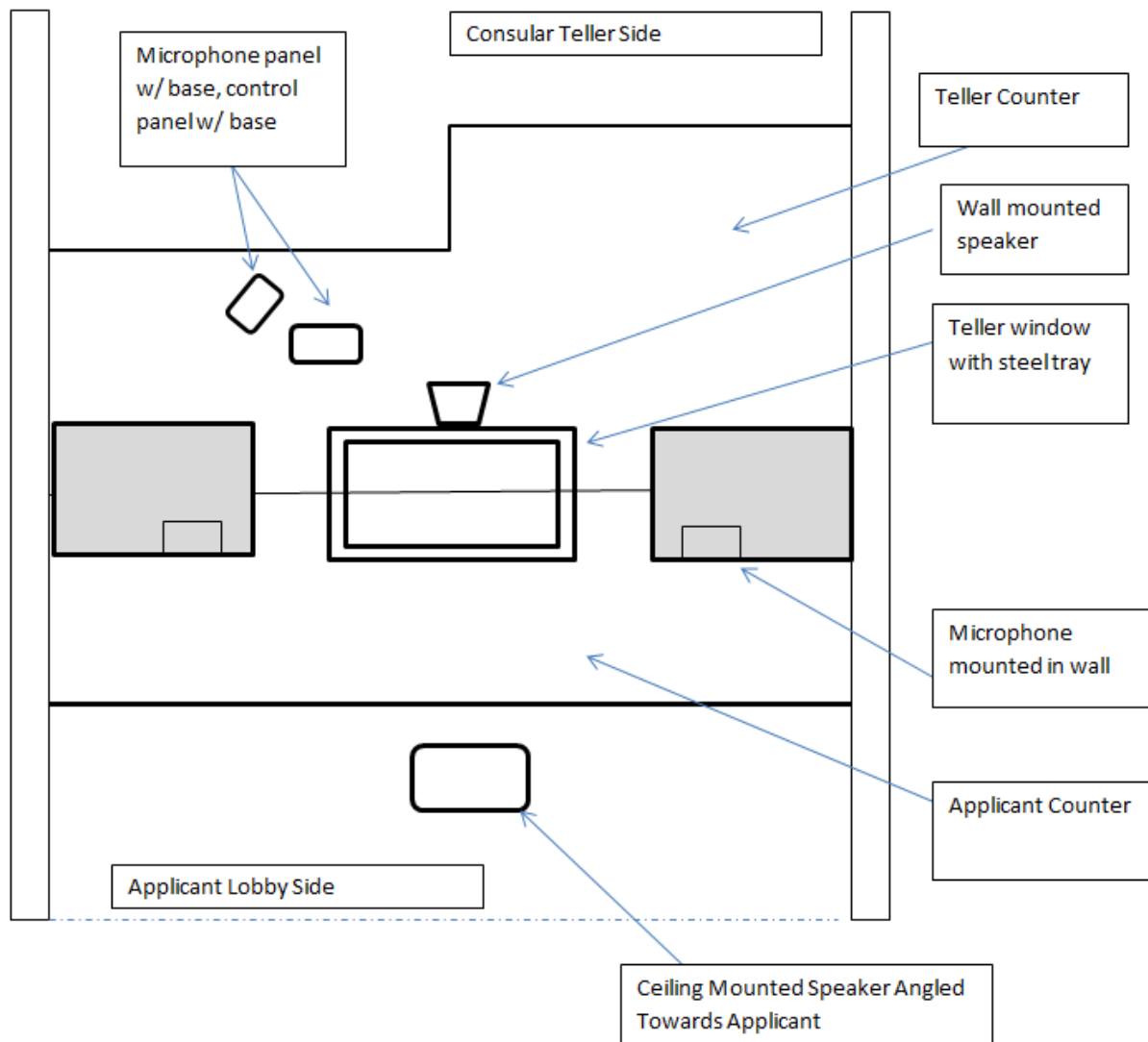
For window control, each window will include a **volume and muting controller** that will be cabled to the equipment rack. The window controller will allow the user to mute the speaker volume on either side of the window as well as control the volume of the speakers on either side of the window. **If proposing a touch screen controller, the controller must not reach end-of-life for at least 5 years after installation. Each window volume/muting controller will route back to a central control processor.**

Waiting Area Loudspeakers: Place contractor provided loudspeakers to serve paging zones in consular waiting area and in associated outdoor waiting area. Speaker indoor coverage shall

conform to ANSI/INFOCOMM 1M: 2009, "Audio Coverage Uniformity Standard in Enclosed Listener Areas." Paging into the waiting area shall be accessible from every interview window via the volume/muting controller.

The system will include all speaker(s), gooseneck microphones, applicant microphones, headsets, and control and category cable. The system will include an audio rack to be located in the consular section.

All software/configuration files and user manuals of the system shall be the sole property of U.S. Government. Vulnerabilities in software or exploitation by other entities are the responsibility of the contractor.



The vendor will make a pre-installation site visit. When drawings are completed to the satisfaction of the Embassy's COR, the vendor will procure the needed materials, assemble, and test the components, and deliver and install them. Drawings set should include floor plan layout of equipment, sectional drawing showing equipment placement and equipment line diagrams at minimum. All power callouts should also be present in the drawing set.

6. Drawings: In case of differences between small and large-scale drawings, the latter will govern. Where a portion of the work is drawn in detail and the remainder of the work is indicated in outline, the parts drawn in detail shall also apply to all other portions of the work.

7. Administration: Contractor shall provide a submittal within 15 business days as per U.S. government calendar after the site visit documenting cable routing, conduits, pathways from the station equipment to the communications closets, communication distribution frame and vertical/horizontal cable sizes.

8. Contractor shall label all cabling and receptacle boxes as set forth in EIA standards as well. Contractor shall provide as-built or records management documentation (labels, records, drawings, etc.) showing all cable terminations and cross-connects.

9. Security: Work in some areas will require a cleared American escort.

10. Testing: The Contractor shall perform pre-qualification testing during installation to ensure quality control and that the cabling system will pass qualification testing. Post **Burundi, Bujumbura** personnel will test equipment to the standards and the contractor will be responsible for repairing or revising systems to meet any non-compliance the testing process reveals.

11. Removal of Existing Wiring: The Contractor shall repair any damage caused by the removal of the current microphone system, and eliminate any holes or gaps left behind that are not covered by the new system. Upon completion and passing of tests identified above, contractor shall remove old cabling. This shall be done minimizing any property damage to walls, ceilings, and carpets affected by the removal. Contractor is responsible for restoring walls, ceiling, and carpeting to their original condition. If cutting or a penetration is necessary, it shall not impair the structural stability of the building and system and contractor shall patch and paint (if on wall or ceiling) effected areas.

12. Patching & Repair: Patching material shall match existing materials in type and quality and be specifically designed to fill holes, spaces, and voids and cavities at communication penetrations and where old cabling removed. Patching material shall be made of fire stopping materials. Restore patched surfaces as close to the original condition and finish as possible. Where patching occurs, smooth the surface to be painted and extend the paint coat over entire unbroken surface containing the patched area. Patched areas shall be primed first and finished with two coats of paint so that patch blends into existing surface.

13. Contractor is responsible for including all necessary travel costs in association with performance on the contract.

14. Shipping of consular audio system materials to either CONUS dispatch point or directly to the (insert diplomatic post name) to be included in contractor's proposal.

## **TRAINING**

The Contractor shall train the Consulates/Embassy's Consular staff in the operation of the system, and the Embassy's Facilities staff in the power and electrical maintenance of the system. The Contractor shall provide user manuals, both paper and electronic. The Contractor shall have a dedicated point of contact for both operational and maintenance issues. If the system initially has a password, the consular, facilities, IRM, and COR will be provided that user/admin log on information with the password.

## **INSPECTION AND ACCEPTANCE**

1. The COR, or his/her authorized representatives, will inspect from time to time the services being performed under this contract and the supplies furnished to determine whether work is being performed in a satisfactory manner, and that all supplies are of acceptable quality and standards.
2. The Contractor shall be responsible for any countermeasures or corrective action, within the scope of this contract, which may be required by the Contracting Officer as a result of such inspection.

## **WARRANTY**

1. During project warranty period and during the term of the contract, the Contractor shall supply staff, authorized and trained for the equipment that was installed, to service equipment as described below.
2. Telephone Assistance: Contractor shall respond via telephone within one business day of notification. This first contact will be to outline nature of problem or functional anomaly. Contractor shall make available an individual knowledgeable with installed system that can address specific system issues described by system operators.
3. On-Site Repair Assistance: Contractor shall be available to provide capable technicians for on-site service of systems equipment or control software. Technicians dispatched shall be familiar with installed system with complete knowledge of products used in systems configuration. Technicians dispatched shall have complete ability to address nature of system anomaly or performance difficulty described. Provide on-site response within one week. Service shall be available during normal business hours of the facility, Monday through Friday, 8:00 am until 5:30 pm.
4. Scheduled Service: Contractor shall provide two scheduled service visits to inspect, maintain, and adjust systems during warranty period. First visit shall occur three to six months after

installation (at COR's discretion), and second visit during the last three months of the warranty period (at the COR's discretion).

6. Warranty period: Unless otherwise specified by the contracting company, the warranty period of installed hardware shall be no shorter than one year.

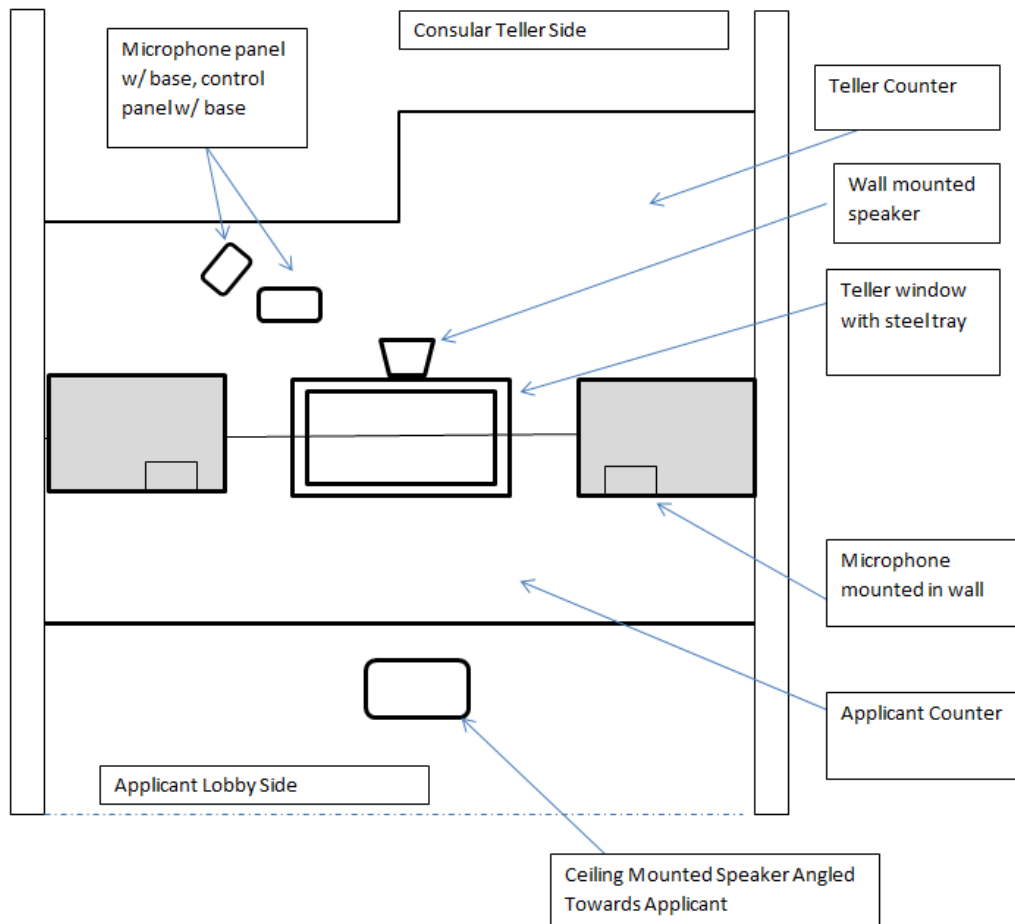
## **SPARE PARTS**

Upon completion of the installation, the contractor shall provide sufficient spare parts for complete microphone systems. A complete inventory will be provided to the COR of all spares provided.

## **VIII. QUALIFICATIONS:**

- Minimum five years of relevant audio equipment installation experience with examples of work performed and references (include POC name, email address, and phone number for each).
- Certifications: PSNI network of AV systems (this network supports the consular intercommunications systems), contractor must provide proof of CTS, CTS-I and CTS-D certifications.
- Manufacture certification for proposed equipment items
- Be an authorized reseller of proposed equipment.
- Must have the necessary permits and licenses to perform this type of work in (Insert country).
- GSA Contract number if applicable.
- Adherence to FAR 52.204-24 through 26 regarding covered telecommunications equipment (The National Defense Authorization Act of 2019 (Section 889)).
- Adequate financial resources or the ability to obtain them;
- Ability to comply with the required performance period, taking into consideration all existing commercial and governmental business commitments;
- Satisfactory record of integrity and business ethics;
- Necessary organization, experience, and skills or the ability to obtain them;
- Necessary equipment and facilities or the ability to obtain them; and
- Be otherwise qualified and eligible to receive an award under applicable laws and regulations

1. Please refer to the graphic below for a bird's eye view of the current consular microphone setup of post **Burundi, Bujumbura** window units. In this diagram, the items labeled 'speaker' and 'microphone' are actually integrated microphone and speaker devices.



**END OF STATEMENT OF WORK**